The Journal of the American Association of Zoo Keepers, Inc.



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The American Association of Zoo Keepers, Inc. exists to advance excellence in the animal keeping profession, foster effective communication beneficial to animal care, support deserving conservation projects, and promote the preservation of our natural resources and animal life.

From the Editor

Throughout the past year, I was asked by different colleagues on separate occasions if I knew of an organization or a conservation project that supported the conservation of the following species: Tigers, Lions, Giraffes and endangered waterfowl. My answer to each inquiry was the same: AAZK's Bowling for Rhinos.

The name Bowling for Rhinos has always been a little too specific for some. I have often heard colleagues say, "BFR is great, but I'm interested in (fill in the blank) and BFR doesn't support that". However, the iconic rhino is just the umbrella species, sharing habitat with countless species, many threatened or endangered themselves. Our BFR Partners work in some of the most biologically diverse ecosystems on the planet. To save habitat for the Sumatran rhino and reduce poaching does the same for Sumatran tigers, fanged river frogs, king cobras, white-winged wood ducks and sun bears.

In Africa, protecting rhinos does the same for elephants, giraffe, lions, and countless species of birds and reptiles. For flora enthusiasts, there's endangered orchids and invasive plant removal/replanting programs. BFR has something for everyone, and that's the true meaning behind a great conservation program. This issue is dedicated to all of you who have made BFR the great conservation program that it has been for the last 25 years, and to those who will help us protect these species for the next 25 years and beyond. We hope you enjoy this issue, and it gives you the information and inspiration you need to make 2015 another record year!

Cover photo courtesy of Patty Pearthree.

Articles sent to Animal Keepers' Forum will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for AKF. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the Editor. The Editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or e-mail contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone (330) 483-1104; FAX (330) 483-1444; e-mail is shane.good@aazk.org. If you have questions about submission guidelines, please contact the Editor. Submission guidelines are also found at: aazk.org/akf-submission-guidelines/.

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ANIMAL KEEPERS' FORUM

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FROM THE PRESIDENT



People don't buy what you do, they buy why you do it

- Simon Sinek

A couple of years ago, I came across Simon Sinek's talk on Ted.com entitled "How Great Leaders Inspire Action". I was captivated by his message that most people follow not what you do but rather why you do it. Most organizations know what they do but few know exactly why they do it. According to Sinek, "The goal is not just to sell to people who need what you have; the goal is to sell to people who believe what you believe". As a professional organization, we offer a service to both our members and to our profession. However, when people ask why they should join AAZK, I believe we sometimes make the mistake of answering with what we do rather than why we do what we do. Sinek's answer to this is established in the creation of a "Why" statement, a statement of purpose, if you will.

After listening to Sinek's presentation, I took his challenge and created my "Why" statement for our Association. It is not an official statement and only represents my perspective on why we do what we do. I'd like to take this opportunity to share with you my version of our "Why" statement. My "Why" statement (in bold font) is broken up and elaborated for you below:

As an association, everything that we do makes a positive impact on animal care.

We place a great emphasis on advancing excellence in the animal care profession. We are a passionbased profession and strive to help others give the very best care for their animals. Our primary goal is to empower keepers with the opportunity to learn from subject-matter experts and peers. Learning from others helps improve our overall ability to advance excellence in animal keeping.

We believe in challenging our current knowledge-base and we strive to communicate effectively with others in our field in order to perfect our skills. What we learn, what we share, and how we engage are powered by the passion that we have for the animals we care for.

In the past, zoo keepers were considered skilled laborers. Today we are animal care professionals; lifelong learners. We are in a constant state of developing our skills, communicating with other keepers and sharing new techniques and modifications. Our conferences, the AKF, and AAZK Online offer great opportunities for keepers to learn and share ideas. We do not work in a closed environment but rather network effectively with keepers all over the world. In a nutshell, no animal care professional should ever have to "reinvent the wheel".

We also believe that the passion we have for animals exceeds all borders. This passion enables us to make a profound impact on conservation; it drives the collective effort that enables us to send hundreds of thousands of dollars to support worthy conservation efforts each year. We do this because we care for animals.

At the American Association of Zoo Keepers, we raise hundreds of thousands of dollars each year to help ensure that species that we care for are protected in the wild. It's an extension of the passion that we exhibit for the animals under our care. As a national organization, we collectively have raised over \$5.4 million for rhino conservation on two continents. Our conservation efforts also help protect other endangered species found within these precious habitats. In this issue of the AKF, you will read about how individuals and Chapters have transformed their passion into life-saving efforts, raising funds and awareness for our flagships species.

Individually, Chapters raise funds for conservation through numerous events. Astonishingly, their total efforts amount to nearly \$1 million each year. It's our passion incarnate; our donations to conservation efforts around the globe help protect species and their habitat and in doing so, make a colossal contribution towards saving endangered species from extinction.

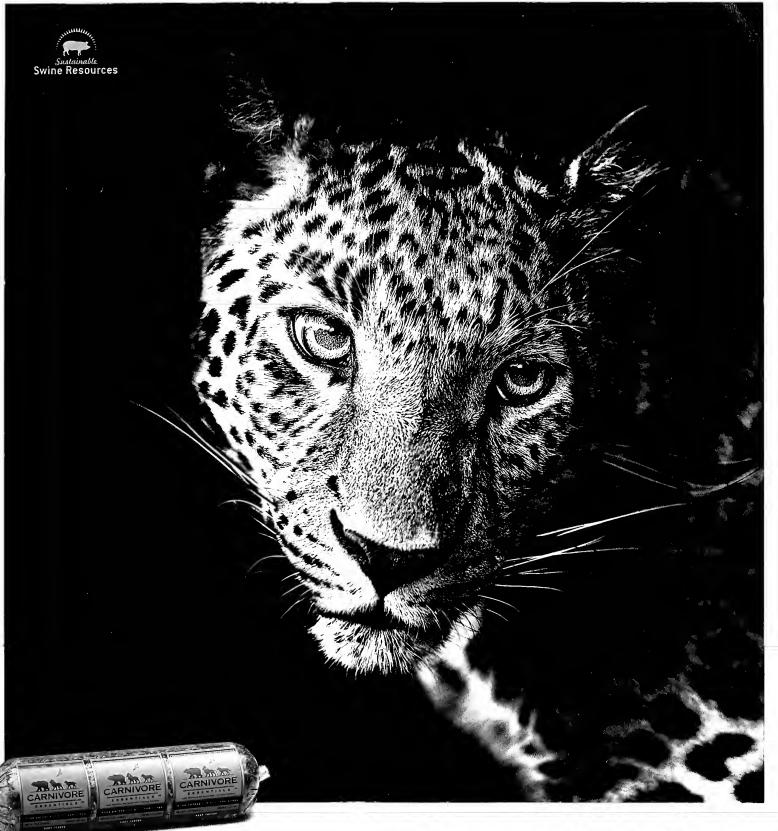
We care for animals. It's that simple, but the extent of our care is profound.

When asked by a peer, "why should I join AAZK?", don't tell them what we do. Instead, give them the "Why" answer.

As always, I welcome your thoughts and input. E-mail me at bob.cisneros@aazk.org; I would love to hear from you. Drop me a line, I promise to write back.

Respectfully,





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April 27-May 2, 2015 **AZA Best Practices in Animal Keeping Course**

Buffalo, NY Hosted by Buffalo Zoo For more information go to: aza.org/AAK.aspx

June 1-5, 2015 **Prosimian TAG Meeting and** Workshop

Mvakka Citv. FL Hosted by The Lemur Conservation Foundation. For more information contact Alison Grand at: agrand@lemurreserve.org.

June 1-5, 2015 **Conservation Breeding Centers for Wildlife** Sustainability

Smithsonian Conservation Biology Institute (National Zoo), Front Royal, VA For more information go to: SMConservation.gmu.edu

June 2-4, 2015 **Chimpanzee Husbandry** Workshop

Detroit, MI Hosted by Detroit Zoological Society For more information go to: detroitzoo.org/animals/ chimpanzeeworkshop

June 14-18, 2015 International Rhino Keepers' Workshop

Chester, England Hosted by Chester Zoo For more information and Call for Papers, go to: rhinokeeperassociation.org/ rhino-keeper-workshop/

July 10-16, 2015 **Felid TAG Conference and Husbandry Course**

Pittsburgh, PA Hosted by Pittsburgh Zoo and **PPG Aquarium** For more information go to: http://pittsburghzoo.org/ felidtagconference

September 9-13, 2015 International Congress on Zookeeping

Leipzig, Germany Hosted by Leipzig Zoo and the International Congress of Zookeepers (ICZ).

For more information visit: iczoo.org.

September 17-21, 2015 **AZA National Conference**

Salt Lake City, UT Hosted by Utah's Hogie Zoo For more information visit: aza.org.

October 5-9, 2015 Giraffe Care Workshop

Colorado Springs, CO Hosted by Cheyenne Mountain For more information visit:

cmzoo.org/index.php/giraffecare-workshop/



September 27 - Oct. 1, 2015 **AAZK National Conference**

St. Louis, MO

Hosted by Saint Louis Zoo and

St. Louis Chapter of AAZK More details can be found at: www.stlzoo.org/animals/ soyouwanttobeazookeeper/ americanassociationofzooke/

October 12-16 **Zoos and Aquariums Committing to Conservation** Conference (ZACC)

Denver, CO Hosted by Denver Zoo For more information go to: http://www.denverzoo.org/ ZACC

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Pre-Conference Trip Saturday, September 26, 2015 Dickerson Park Zoo (price TBD)

Conference Sunday, September 27, 2015: Icebreaker

Monday, September 28: Keynote Speaker

Jenny Gray, Zoos Victoria, Presentations and Workshops

Tuesday, September 29:
Presentations and Workshops

Wednesday, September 30:Zoo Day

Thursday, October 1:
Presentations and Closing Banquet

Post-Conference Trip Friday, October 2, 2015

> World Bird Sanctuary, Tyson Research Center and Endangered Wolf Center (price TBD)

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Member: \$240

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Non-member: \$290

Daily Registration:

AAZK Member/Spouse: \$80

Non-member: \$90

Icebreaker Only

(Non-registered Parties): \$40

Awards Luncheon Only (Non-registered Parties): \$50

Closing Banquet Only (Non-registered Parties): \$75

Registration after August 21, 2015:

AAZK Member/Spouse: \$290

Non-member: \$340

Daily Registration after August 21, 2015:

AAZK Member/Spouse: \$100

Non-member: \$110

For more information on the 2015 AAZK National Conference, visit stlaazk.org. If you have any questions, email poelker@stlzoo.org.

Call (314) 421-1776 to book your room. Be sure to let the hotel know you are attending the conference so you receive the \$149/night AAZK rate.

All conference sessions (except the icebreaker) will take place at the Hilton St. Louis at the Ballpark Hotel. The Hilton St. Louis at the Ballpark Hotel is situated in the heart of downtown St. Louis and only 20 minutes from Lambert International Airport. The hotel is within 100 yards of Busch Stadium and footsteps from the famous Gateway Arch. Visit hiltonstlouis.com for more information.

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For up-to-date conference information, visit stlzoo.org/aazkconference.



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Call for Abstracts

Papers:

Authors will be allowed 15 minutes for presentation with five minutes of Q & A immediately following. Abstracts should focus on the conference theme including innovative approaches and best practices in the areas of animal husbandry, conservation, leadership, education, enrichment and training.

Guidelines for Abstracts:

Abstracts should be no more than 250 words and submitted as a Microsoft Word document via e-mail to pdc@aazk.org.

Posters:

Posters will be on display throughout the conference. Please include the following information:

- Name of the authors and presenter
- Institution/affiliation
- Position/title
- Title of work (please specify poster or paper)
- AV requirements
- Contact information (please include e-mail)

Deadline for abstracts is May 1, 2015.

Authors will be notified regarding their acceptance by June 1, 2015. All papers must be received by July 15, 2015 to be included in the conference program. Please contact pdc@aazk.org with any questions.

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AAZK is a nonprofit volunteer organization (U.S. 501c3) made up of professional zoo keepers and other interested persons dedicated to professional animal care and conservation.





I hate bowling! I never go bowling.

Maybe it's because I'm so bad at it. Breaking 100 would be a really big deal for me.

More likely it's the embarrassment factor. Standing alone at the end of the lane imagining that everyone is watching you (they're actually watching their beer and nachos).

What if you let go of the ball too soon and it flies off behind you into the midst of the innocent bystander (I've done that)?

What if your fingers get stuck in the ball and you go sprawling down the lane after it (I've done that)?

What if you throw the ball so hard and so off target that it skips out of the gutter into the next lane (I've done that)?

What if your pants fall down (so far I've only done that in my recurring nightmares)?

Despite this fear bordering on paranoia I do go bowling once a year. I wouldn't miss Bowling for Rhinos.

It's been almost 30 years since I was officially a zoo keeper. But, like most former keepers. I still feel that I'm a zoo keeper. I'm just a zoo keeper who's doing a different job.

I have a great deal of pride towards AAZK and the zoo keeping profession. I see so many AAZK Chapters involved in local, national, and international conservation efforts. I know so many keepers that have gone on to change the world. Laurie Marker, Arnaud Desbiez, Norm Gershenz, just to name a few. My favorite conference to attend is the Zoos and Aquariums Committing to Conservation Conference. A meeting that was started by zoo keepers who felt zoos should be doing more for conservation.

But, in my mind, there's no doubt that the greatest conservation accomplishment of keepers has been Bowling for Rhinos. A program that has made a significant difference in the fight to save vanishing species. A program that was initiated by keepers; sustained by keepers; nurtured, grown, and evolved by keepers.

The Jacksonville Zoo and Gardens AAZK Chapter is one of only a handful of Chapters that has participated in every single BFR since its inception. But, not a single one of our current keepers/bowlers was here when the event started. Another great thing about BFR - it has been carried on through a generation change. The keepers have changed. the passion and dedication hasn't.

As director of the Jacksonville Zoo and Gardens I want to see our AAZK Chapter succeed in their efforts to make BFR bigger and better every year (they've broken their own fundraising record for the past two years in a row). I want everyone in the zoo to participate and the zoo to devote resources to help make it a success. But, I walk a fine line. If we help too much it becomes a "zoo event" rather than an "AAZK event".

That can't happen. BFR is about conservation, it's about rhinos and other wildlife, but, more than anything else it's about zoo keepers.

Congratulations AAZK on 25 years of Bowling for Rhines. I will see you in the bowling alley. I'll be the one holding tightly on to his pants.

Tony Vecchio Director, Jacksonville Zoo and Gardens

2015

Bowling for Rhinos
Conservation
Resource
Grant

Now accepting applications!

The AAZK Conservation Committee is pleased to announce that we are now accepting applications for the Bowling For Rhinos Conservation Resource Fund for up to \$10,879.70. The application materials and grant stipulations can be found on the AAZK website under the Bowling For Rhino's FAQ's page.

Applications are due 1 June 2015. Specific questions can be obtained by contacting Wendy.Lenhart@aazk.org.





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I first visited Kenya in 1991 after being awarded the prize of a free two-week trip to Lewa Wildlife Conservancy. I had raised the most money in the U.S. and Canada during the first annual AAZK-sponsored Bowling For Rhinos (BFR) event. As it is with many, it was a life-changing trip for me. I was able to share the trip with my husband, Herbie, who has tirelessly supported me in all my ventures. I could not have been your BFR Program Manager for the last 25 years without his unending support.

The dedication of the Craig family (owners of Lewa) and Anna Merz (co-founder of the original rhino sanctuary) to conservation was extraordinary. Their vision was to have the surrounding communities benefit from wildlife conservation and this became the key to their success. As they shared their passion with us, we soon became lifelong conservationists and had the bug to help all we could.

BFR supported only Lewa in the beginning, raising about \$100,000 annually with support from 45 Chapters. Our success grew over the years. Lewa was a 10,000acre rhino sanctuary back then in the African bush at the foothills of Mt. Kenya. Lewa and BFR grew over the years. Lewa is now home to 15% of Kenva's black rhino population and the world's largest population of Grevy's zebra. Lewa is now 65,000 acres that are a small part of the Northern Rangelands Trust (NRT). This now protects six million acres of wildlife habitat on communal lands through The Nature Conservancy.

In 1993, Anna Merz asked if AAZK could expand its funding efforts to try to help save all five species of rhino from extinction. In 1994, we expanded our funding efforts to include Ujung Kulon National Park in Java, Indonesia to help protect the Javan rhino. Again, Herbie and I were able to visit this amazing part of the world and trek through this lowland tropical rainforest. My trip was funded by the Minnesota Zoo and a grant through the U.S. Fish and Wildlife Service.

As BFR became more successful we were able to expand even further in 1997 by adding National Parks in Sumatra, Indonesia to save Sumatran Rhinos. The U.S. Fish and Wildlife Service provided a grant that allowed me to travel again to Indonesia with a crew of Minnesota Conservation officers and television crews. We traveled for days into the tropical rainforests of Java where our journey took us to a remote village that had only seen one white man 50 years ago and never a white woman. We were quite the spectacle for a couple of days.

In Indonesia, we now protect nearly 1.5 million acres of crucial lowland rainforest habitat for the survival of the Javan and Sumatran rhinos and other species living in their ecosystems including Sumatran tigers, elephants, tapirs, Javan gibbons and sun bears. It is one of the most biologically diverse places on the planet and BFR played a huge role in saving a bit of it!

I ventured back to Lewa several times (on my own dime) as I felt I couldn't speak to the Association if I didn't have firsthand information. Now, I voluntarily lead groups of zoo keepers, docents, family and friends to Lewa each year. I am able to spread the word about Bowling For Rhinos and conservation while I show folks firsthand how their fundraising dollars are spent. As each returns home, they bring with them the passion to help Bowling For Rhinos grow and become more successful. Many have gone on to increase the fundraising success at their zoos or start up new events.

Many of you have now visited Lewa yourselves by winning trips through BFR or by traveling with one of the zoo groups. I hope you all get to visit one day.

We also now support Action for Cheetahs in Kenya (ACK). This supports habitat around Lewa that creates a buffer zone from poachers. ACK works to educate communities of the importance of wildlife so rhino benefit by sharing the same habitat as the cheetah.

In addition, BFR supports a conservation grant program that benefits rhino conservation in the wild. This program allowed us to expand to include supporting projects to help save the Indian rhino, finally granting Anna Merz's lifelong wish of AAZK saving all five species of rhino.

Our support of our three conservation partners, Lewa, IRF & ACK has helped enormously in the anti-poaching war and habitat protection. As our fundraising success increases we can begin focusing on combating the demand-side of rhino poaching. Decreasing the demand for rhino horn and elephant ivory is the direction we are moving towards in conservation efforts. But we must always keep our finger in the hole in the dam against poaching and never let our guard down. Our conservation partners are now able to make strides in this direction due to our fundraising success. You will hear from "Breaking The Brand", an organization whose mission is to combat the demandside of rhino poaching. It will be interesting to see the results of this new direction.

I am so proud to have served as your National BFR Program Manager for over 25 years. BFR now helps save all five species of rhino plus everything from orchids to sea turtles to elephants. I had the unique opportunity of being involved with BFR as it evolved from protecting a 10,000 acre rhino sanctuary to protecting over seven million acres of wildlife habitat in some of the most unique ecosystems in the world. We have raised over \$5.4 million with EVERY PENNY going straight to conservation in the field where it is most needed to save wildlife for future generations. Bowling for Rhinos saves diverse wildlife such as cheetah, Sumatran tigers, Malayan sun bears, tapirs, Javan gibbons, leopard tortoise, scarlet-chested sunbird and the coral reefs, just to name a few. Together we have helped to save countless species from extinction. Here's to the next 25 years!

Our #1 BFR goal for 2015 is to have all AAZK Chapters participate in "Bowling For Rhinos". Any type of fundraiser is welcome. Some Chapters have been very successful with "Wii Bowling", "Run/Race For Rhinos", 'Rummage For Rhinos", "Rock'n For Rhinos", "Sailing For Rhinos"...and the list goes on. All donations of course are always welcome and count as participation. Remember, it takes about five consecutive years for a fundraising event to catch on in your community so it is important to keep rolling with BFR in order to be successful.

Our #2 BFR Goal is to increase our fundraising success each year. We raised over \$581,000 in 2014 so we will get there working together. If we increase the overall size of the "conservation pie" each of the organizations we support will receive a larger amount of money. We have already raised over \$5.4 million to date so let's aim for reaching \$6 million this yearour 25th anniversary year!

Now is the time to begin planning your event for 2015. Form a committee and select a date if you have not done so already. If you are able, try to pick a date in early May. The more events we can have around the country together, the more PR we are likely to receive. Please see http://aazk.org for helpful hints on holding a successful event. You will need to log onto the members-only site in order to access most BFR info.

Please let me know the date of your event and your contact information asap including e-mail address so I can update the website. All three organizations who receive BFR funding (IRF, Lewa and Action For Cheetahs in Kenya) would like to help you "grow" your event but we need this information to do so. If you plan to make a donation rather than hold an event, please let me know.

Patty Pearthree receiving the Lifetime Achievement Award from Bob Cisneros in 2013. Photo by Bill Konstant. All other photos by Patty Pearthree.



Please contact Patty Pearthree: ppear3@gmail.com.

Please also join the BFR Coordinator yahoo groups e-mail by e-mailing your request to Barbie Wilson at rhinobarbie@hotmail.com. We can then inform you more quickly of important updates/events, etc.

NEW ADDRESS FOR 2015:

Deadline to send in BFR funds for trip winners is September 1

Checks payable to: "AAZK,Inc-BFR"

Please send all BFR funds to: Ed Hansen, CEO AAZK Office c/o BFR 8476 E. Speedway Blvd., Suite #204 Tucson, AZ 85710

Please also e-mail a scanned copy of the check & financial statement (found on website) to: ppear3@gmail.com ESPECIALLY if it is close to the deadline! If you have straggler checks you are waiting on, I can add them to your total at a later date.

Deadline for all funds to be included in the 2015 BFR totals is December 1st.

Please do NOT use the website BFR donation button to send in your Chapter's BFR funds. This is meant for the general public's use. There is a fee that AAZK incurs when the donation button is used.

The \$25 Administrative Fee check should be a separate check mailed to the above address. This fee enables BFR to be one of the only conservation organizations in the country where "100% of every donation goes directly to conservation".





What do you do when despite spending tens of millions of dollars and your very best efforts, the rhino is inching ever closer to extinction both in the wild and as a species? Are you prepared to question your assumptions, values and beliefs to try a different strategy or do you remain wedded to strategies that reaffirm your identity, but don't save the rhino? Whilst most people would claim to be able to shift to a new strategy when presented with this choice, in reality this rarely happens.

In relation to the rhino poaching crisis, we are now at this juncture. The strategies deployed in the last five years have not stopped the poaching. Demand for rhino horn continues to escalate. A rethink is required and that means a lot of people and organisations heavily invested in the current way of doing things need to decide that saving the rhino is more important than saving their belief system.

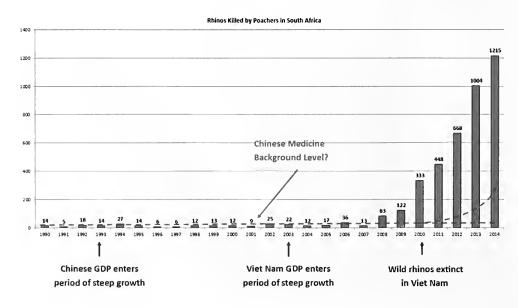
A way of looking at the rhino problem differently is presented in this article. The strategy outlined has been proven and will cost significantly less than the current measures. Will the conservation industry support the switch in strategy or prefer to preside over the demise of one of the iconic species it has pushed so hard in the public eye?

The Problem

The latest escalation in rhino poaching is a recent phenomenon, poaching in South Africa had been very low for over 15 years prior to the exponential rise that started in 2007 and continues to date (see graph). Even though China entered a period of steep economic growth from the early nineties, nothing happened in relation to rhino poaching levels. In contrast, the escalation is closely correlated with Viet Nam entering a period of rapid economic growth and seemingly in parallel with a rumour, started in Viet Nam around 2005, that rhino horn had cured cancer in a former politician. The politician was not named, nor were there any details on the cancer that was supposedly cured (www.theguardian.com/environment/2011/ nov/25/cure-cancer-rhino-horn-vietnam).

A 2012 report by TRAFFIC and other research shows that rhino poaching is driven by exponential growth in demand primarily from Viet Nam. We cannot successfully address the rhino poaching crisis without understanding the nature of the demand. Viet Nam is a fastgrowing market for luxury goods and brands. A growing group of newly wealthy Vietnamese is highly aspirational and status conscious. For this group, rhino horn has become a status symbol. Only the truly wealthy can afford genuine rhino horn, which sells at up to USD \$65,000/kg. TRAFFIC and other research estimates that more than 90% of what is sold as rhino horn in Viet Nam is fake.

Supply of genuine horn cannot keep up with rising demand, so prices continue to rise. Rising prices have now turned rhino horn into an investment, a store of value. This is an extremely dangerous development, as from the investment perspective extinction of the species in the wild is a positive, because it means prices cannot fall.



As a result of the exponential rise in poaching, international awareness of the problem has reached a tipping point. Large funds have now been donated to military-style protection measures, massive awareness raising campaigns have been launched, law enforcement is being stepped up and education campaigns have been launched in Viet Nam. We are now at a point where many conservancies run 24/7 armed guard protection for each and every one of their rhinos and where the South African government has started to translocate rhinos from Kruger National Park to more secure locations. In addition, many conservancies and parks have used dehorning as a strategy to deter poaching. None of these measures have been able to significantly affect the poaching rates.

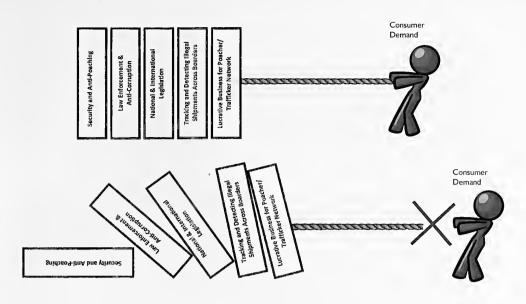
Going After The Users Not Only The Poachers

Whilst stepping up security is necessary, anti-poaching measures are recurring, huge expenses given the vast land areas to protect. Even protecting 100-150 rhinos in a small conservancy costs of the order of USD \$2 million per year.

In addition, law enforcement cannot resolve the crisis. The rhino horn supply chain is complex, dominated by criminal syndicates and awash with money. This is not surprising and mirrors other illegal wildlife products and the situation with illicit drugs such as cocaine. Any good that is of such high value on a per-gram basis will attract a continuous stream of willing poachers, traders, middlemen and smugglers hoping to become rich or simply escape poverty for a few years.

Because the amounts of money being made are so high it would be unreasonable to expect that the smugglers are quietly going to give in to high-tech anti-poaching measures such as drones and 24/7 armed patrols that have already been rolled out. From our perspective, this spending needs to be augmented urgently with targeted demand-reduction measures that will address the exponential increase in demand coming out of Viet Nam. If demand can be reduced or even halted, the supply chain collapses instantly, as it relies on the end-users being willing to pay everescalating prices.

We know from the TRAFFIC research and our own research that the users of genuine rhino horn constitute an ideal target group for a behaviour-change campaign:



Concentrated in Specific

Locations: they live and work mainly in Hanoi and Ho Chi Minh City

- Homogenous in Socio-Economic Composition: newly wealthy, highstatus Vietnamese businessmen and government officials, mostly men in their 40s plus
- Reachable Through Advertising: the primary users can be reached through advertising in selected locations and publications
- **Non-Addictive Product:** consumption of rhino horn does not cause addiction as in the case of illicit drugs
- **Clear Reason for Consumption:** the primary reason to consume rhino horn is to attain and maintain status within the peer group via giving it as a gift and use in the so-called 'Millionaires Detox Drink'; any alleged health benefits are a secondary consideration

Only two potential factors to Stop Using Rhino Horn:

- Impact on personal health/ wellbeing - creating Fear/ Uncertainty/Doubt campaign as pilot based on rhino horn being poisoned.
- Impact on personal status if the peer group or a higher status group were to reject rhino horn, the desired status gain would not eventuate and usage would decline

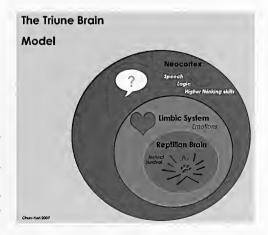
From a behaviour change perspective this situation is close to an ideal scenario. It mirrors the anti-fur trade campaigns of the 80s very closely, including the motivation to consume (status gain). We know from the anti-fur ads that they were

successful in reaching the target group and changing the behaviour, so we know that similar results are achievable for rhino horn. Obviously, the target group is quite different in our case and the advertising needs to take those differences into account.

Creating Behaviour Change

For behaviour change messages to be effective with the actual user they need to elicit an immediate emotional response in the person; to do this they are generally controversial. In parallel they need to get the target's attention by providing a link to their identity; this is about people like me. A perfect example of this is the antifur campaign of the 1980s by Lynx (now Respect For Animals). These campaigns were accused of being sexist, which they are not. They simply target the people wearing fur coats and, in the main, they are women.

Marketing and advertising agencies have accumulated a massive amount of knowledge on how to influence consumer behaviour. The basic model being used



Turquoise	Holistic	Collective individualism; Cosmic Spirituality; Earth Changes
Yellow	Integral	Natural Systems; Self-principle; Multiple Realities; Knowledge
Green	Consensus	Egalitarian; Feelings; Sharing; Caring; Community
Orange	Strategic	Materialistic; Consumerism; Image; Status; Growth; Winners and Losers
Blue	Authority	Meaning; Discipline; Traditions; Morality; Rules; Live for Later; Saints and Sinners
Blue	Authority	
		and Sinners Gratification; Glitz; Conquest; Action; Impulsive; Lives for Now; Heroes

to influence purchasing decisions is the triune brain model (see image).

What advertisers have learned is that the way we rationalise our decisions does not reflect how we actually make them. Whilst we would like to believe that our rational brain is in charge, the neocortex mostly just rationalises decisions already made by the reptilian and limbic system. Because these drivers remain unconscious, they can be skillfully exploited in marketing and advertising.

The same model can be used to get people to buy less, not just more. In the case of rhino horn, the limbic brain is driving the purchasing - status anxiety and conforming to group expectations are both emotional decisions made by the limbic system.

The society in Viet Nam is in transition from a Confucian/Communist to a Capitalist system, yet remains different from Western Capitalism. It is even more male-dominated, but not as individualistic. Identity is more dependent on belonging to social groups and one can't lose face by standing against the group. In addition, there is no or very little cultural affinity with animals.

The result in relation to rhino horn is entirely predictable:

- Conservation messages are ignored if they are empathy or higher values-based
- Law enforcement messages are 2. largely ignored (75% of population fully aware of penalties)
- 3. Can't go via wives/children - lack status to influence husband/parents

To understand why the conservation industry remains wedded to using empathy and higher values in its approach to education and demand reduction despite what is actually going to work for the target group, we need to look at values development and behaviour change.

Behaviour Change Model and Campaign Design

As individuals we are not fixed in our nature, we evolve and adapt to different life circumstances. Spiral Dynamics is one of the models used to describe this evolution. This model is the most applicable to the situation involving the users of rhino horn, as it is sensitive to both the reason to consume (status) and the underlying cultural drivers. It can further describe why the demand has exploded in response to recent economic growth.

According to developers of Spiral Dynamics, Graves, Beck and Cowan, our core values progress and regress over time depending upon the life circumstances we find ourselves in. The research undertaken over many years has uncovered that this model works on the individual level and also on the level of a group or even whole societies; it also established that this model is independent of culture, which led them to believe that it is associated with the 'deep structure' of our consciousness.

Spiral Dynamics Levels

The diagram shows different value levels. Each colour corresponds to a values level. The diagram should be interpreted as 'transcend and include', meaning that as a person gains access to the next level, they don't lose access to the values of the previous levels.

Within the model, individuals (and cultures) do not fall clearly in any single category (colour). Each person embodies a mixture of the value patterns.



Advertising Campaign: Pilot RhiNo 'Is it worth the risk? Launched 16 September 2014

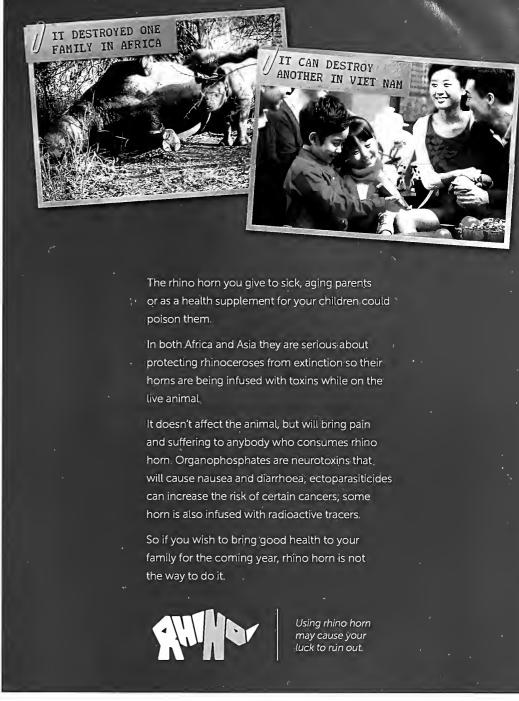
In the Western world it is estimated that about 50% of society has evolved primarily to ORANGE, 25% primarily to GREEN and 20% primarily to BLUE. Similarly it is estimated that less than 1% of the world's population is primarily in YELLOW or TURQUOISE.

Application of Spiral Dynamics to Conservation

From the above descriptions of the values levels we see that conservation is firmly rooted in Green. The conservation movement coincided with the large-scale emergence of the GREEN values level in the 1960s. Yet at the same time the dominant move in values at the global scale today is from Blue to Orange, not from Orange to Green. The big transitions in countries like China, India and Viet Nam are all evolving from BLUE (Confucian/Communism or caste system) to ORANGE (Capitalism). This needs to be taken into account when addressing conservation and illegal wildlife trade issues in those countries.

The main emotion the conservation movement aims to elicit is empathy. This explains why most campaigns use iconic animals, because an empathetic response is anticipated. Yet the Orange and Blue value systems place humans above all other species on the planet. This is reflected clearly in charitable giving in OECD countries, with the fast majority of funds donated going to human causes.

The result of being stuck in a narrow focus on your own values system means that most conservationists can't relate to the motivation of users (ORANGE) or poachers (RED, BEIGE). In addition, the egalitarian nature of GREEN means they are not prepared to single out the primary users for fear of being seen as racist; political correctness emerged with GREEN. Finally, the large conservation organisations are not prepared to engage in strategies that may alienate their support and donor base. The result of these factors in combination is that money is spent in line with values and belief systems of the conservation industry, not in ways that would be effective in changing user behaviour.





Behaviour Change vs. Education vs. Awareness Raising

To turn the current situation with rhino poaching around, a rapid demand reduction strategy is required. When a campaign requires rapid results it must speak to the people causing the problem in a currency they will respond to. The campaigns designed must speak to each specific type of user and not focus on anyone else beyond that user.

Too many current campaigns calling themselves 'behaviour change' should be more accurately classed as education or awareness-raising campaigns. These campaigns tend to highlight the problem of rhino poaching (often but not always assuming an affinity with the animal) or they focus on the fact that rhino horn has no efficacy in treating fevers, cancers, hangovers etc. For example, in recent months we have seen projects targeting primary and secondary school children in Asia being called demand reduction campaigns. They may, through education, ensure that these children don't become the next generation of users in 20 years' time, which is vital, but they are not demand reduction campaigns.

Targeted behaviour change campaigns are constructed on an entirely different premise – they get the user's attention by providing a link to their identity and then create an instant emotional response that is designed to override the gain of consuming the product in question.

Because rhino horn users purchase status and hence make the decision to consume from their limbic brain, any campaign to change their behaviour quickly needs to trigger their reptilian brain – their survival instinct. This can be done in the case of rhino horn by utilising the proven trifecta of generating fear, uncertainty and doubt about the safety of the product being consumed. We will do anything to avoid jeopardising our own health or the health of the important people in our lives.

A New Strategy to Save the Rhino

It is based on these insights and analysis that we created a new strategy to break the demand and save the rhino. All the elements of this strategy exist and have been proven to work. In order to generate fear in the users, we need to make consuming rhino horn potentially hazardous to the user's health. This can be done by using physical horn devaluation – infusing the horn of the live animal with liquid toxins. This process has been used experimentally in South Africa as both a method to protect rhinos from parasites and to deter poaching by adding a dye.

Breaking the Brand has created advertisements to speak to the users and warn them of the potential health dangers associated with consuming poisoned rhino horn. We have run two proof-of-concept campaigns in Viet Nam in late 2014 and early 2015.

If horn infusion is applied to 10-15% of the wild rhino population in Africa and Asia, the probability of consuming poisoned rhino horn will be high enough to create the necessary level of fear and doubt in the users' minds. Combined with targeted advertising in business magazines, newspapers and on TV we can reach the primary users and trigger the necessary emotional response to get them to change their behaviour. Once demand starts to fall, prices will fall very rapidly and the supply chain will collapse. It is only at this point that all the previous investment in security and anti-poaching measures will pay off.





Advertising Campaign: RhiNo 'Will your luck run out?' Launched 16 January 2015

This strategy has a good chance of working, but runs counter to the belief system of the conservation industry. It not only singles out and directly targets a small group of users, it appears to deliberately try to hurt them. Many conservation groups find this idea challenging. This is curious to say the least, given that arming anti-poaching units means rangers and poachers die in Africa every week. Are rich Vietnamese businesspeople of higher value than poor African rangers? It pays to examine the true consequences of your values and belief system, and not just for the sake of saving the rhino.





Photo Courtesy of Texas State Aquarium

"Helping professionals mold enrichment"



Photo courtesy of Stephen Belcher

The International Rhino Foundation has been proud to partner with the American Association of Zoo Keepers for many years. AAZK's Bowling for Rhinos program supports vital work to conserve two of the most critically endangered rhino species on the planet: the Javan and Sumatran rhinos. 2014 was an eventful year for conservation initiatives for both of these species.

AAZK supports seven four-man Rhino Protection Units (RPUs), who conduct daily patrols and surveys of Indonesia's Bukit Barisan Selatan National Park (BBS), which covers approximately 875,000 acres. Five RPUs do the same in Way Kambas National Park (WKNP), which spans just over 320,000 acres. IRF's Indonesian partner, Yayasan

Badak Indonesia (YABI or the Rhino Foundation of Indonesia) manages the program. The RPU program will celebrate its 20th anniversary in 2015 – and we're proud to say that the AAZK has been part of this work for 18 of those 20 years!

The RPUs patrol and survey several thousand kilometers per year in each national park, both on foot and by boat, all the while monitoring rhino, tiger, elephant and tapir populations through direct sightings, footprints, feces, wallows, and evidence of feeding. The RPUs also gather evidence of illegal activities, including encroachment to build hunting camps and plant cash crops, setting snares for large and small mammals, laying traps for birds, illegal fishing, logging, the collection of

non-timber forest products, and setting fires to burn off old vegetation and create fresh browse for game animals such as sambar deer. Despite these activities, poaching remains a threat to several megavertebrate species in the parks.

Bukit Barisan Selatan National Park

In 2014, while there was no rhino poaching, unfortunately, several elephants were killed by poachers in BBS (Figure 1). It's believed that the occasional killing of elephants and tigers may be retaliatory in nature, the result of human-wildlife conflict. Tigers prey on local livestock, while elephants raid agricultural fields and even destroy people's homes. In addition to patrolling, RPUs often assist with

Figure 1. RPU points to bullet hole in the skull of a poached elephant



Figure 2. More than 95 illegal settlement camps have recently been broken down and removed from the park







Figure 3. BBS RPUs documenting footprint of young rhinos.

elephant-human conflict, driving elephant herds out of villages and back into the forest.

The BBS rhino population tends to cluster in the center of the park because of roads and human encroachment. IRF and Indonesian partners are working with the Indonesian government to establish an Intensive Management or Protection Zone within the park, ideally with a 'no-go' mandate, within BBS. The actual demarcation of the area will be jointly proposed by YABI and WCS, based on the most recent survey data.

In addition to patrolling, RPUs have recently spent significant time assisting the National Park authority in removing illegal encroachment camps from the park. More than 95 illegal settlement camps have recently been broken down and removed from the park (Figure 2).

Way Kambas National Park

Most people are not aware that Way Kambas National Park was a logging concession as recently as the early 1970s; it was declared a game reserve in 1982, and finally became a national park in 1986. At the time the park was established, the presence of rhinos had not really been documented. In 1987, a group of students from the United Kingdom, carrying out an elephant study, actually saw a rhino on a riverbank. The Sumatran Tiger Project, at that time run by the Minnesota Zoo, captured 12 photos of rhinos using camera traps set for tigers in 1995. Rhino Protection Units were immediately mobilized, and the first census estimated the population to be about 24 animals. Way Kambas RPUs now protect about 35 rhinos; this population is the only one that appears to be growing. In 2013, seven footprints of rhino calves were found in seven different locations (Figure 3), an encouraging sign!

Although there has been no rhino poaching in the park since 2006, it looms as a threat. In the past few years, RPUs have more frequently discovered and destroyed heavy-cable snares that are routinely set for large mammals, including tigers (Figure 4). The southwestern portion of the park has been cleared of encroachers, and is being re-forested with rhino

food plants in the hopes of making more area available to the rhinos.

Sumatran Rhino Sanctuary

Andatu, the male calf born in June 2012, continues to grow, both in size and independence from his mother, Ratu. He has now been separated from Ratu and moved into a new adjacent pen. Ratu is being introduced to Andalas again, and we are crossing our fingers for another pregnancy! Both Bina and Rosa also continue to be introduced to Andalas; no matings have occurred, although Bina shows great interest and Rosa is tolerating mounting (Figure 5). The latter represents significant progress from the time she used to become frightened and run under the fence when Andalas approached her. The decision has been made to move Harapan (Andalas' brother) from the Cincinnati Zoo to the SRS: the USFWS and Indonesian authorities are reviewing permits.

All the SRS animals have been in good health, with only occasional small issues. The most significant issue was an eye injury that Andalas suffered in February 2014. After a great deal of trans-oceanic consultation, and thanks to connections provided by the Los Angeles Zoo, we were able to fly in Dr. Allison Hoffman, a prominent veterinary ophthalmological surgeon who had treated his eye when he lived



Figure 4. RPUs have more frequently discovered and destroyed heavy-cable snares that are routinely set for large mammals, including tigers and young rhinos.

at the Los Angeles Zoo. She diagnosed an intrastomal abscess and a corneal perforation. Dr. Hoffman worked pro bono for expenses only, and performed surgery on Andalas' eye, and worked closely with the SRS veterinary team during Andalas' recovery. Figure 6 shows the eye pre-surgery and Figure 7 shows it in October 2014. It has healed nicely.

Debt-for-Nature Swap

In late 2014, the US government approved an additional \$ 11.2 million for conservation in Sumatra, to be administered through the Tropical Forest Conservation Act (TFCA) debtfor-nature swap mechanism. The objectives of this new funding are to continue and enhance the conservation of tropical forests, focusing



Figure 5. Rosa tolerating mounting



Figures 6 and 7. Andala pre and post-surgical

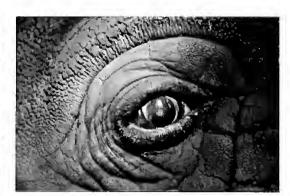




Figure 10. Javan rhino footprints from UKNP





Figure 9. Patrol boat for RPUs working on the Ujung Kulon peninsula.

on key areas for Sumatran rhinos, tigers, and orangutans. Matching funds totaling \$560,000 had to be raised by 30 September 2014 to secure this U.S. government funding, representing roughly a 1:20 return on match investments. Through the Asian Rhino Project, the Cincinnati Zoo & Botanical Gardens, and a private donor, the IRF raised \$150,000 of this match.

A debt-for-nature swap is an agreement

between a developing nation in debt and one or more of its creditors that agree to forgive the developing nation's debts in return for the promise of environmental protection. Debt-for-nature swaps were established in the 1980s to try to minimize the negative effect debt has on developing nations and to minimize the environmental destruction that development frequently causes. There are two TFCA agreements in place in Indonesia to-date; this one, the first, was signed in 2009,

setting aside US \$29.6 million for Sumatra. It is administered through Conservation International and is in effect for 8-10 years.

Because of Indonesia's ongoing eligible debt, the U.S. government approved the additional funding as an addendum to the first agreement. This funding will protect other threatened species such as elephants and orangutans that share rhino and tiger habitat. Key NGO partners working with the US government to secure these funds have been Conservation International, the IRF, and the World Wildlife Fund.

The only remaining viable populations of Sumatran rhino in the world are in three national parks - Way Kambas, Bukit Barisan Selatan and Gunung Leuser. These three parks also contain Sumatran tigers, elephants, and in the case of Leuser, orangutans. The additional funding will be used to support strengthening institutions responsible for national park management and forest conservation, improved management and governance of key protected areas, including engaging all key stakeholders, protection and management of Sumatran rhinos and tigers along with other threatened species, and increasing the awareness of local people and governments.

The funds will be managed by the TFCA Oversight Committee, comprised of a representative from Conservation International, KEHATI (the Indonesian Biodiversity Foundation), the Government of Indonesia and the US Agency for International Development. In collaboration with the Government of Indonesia, a Sumatran Rhino Consortium, including the Leuser International Foundation, Yayasan Badak Indonesia (YABi), the Wildlife Conservation Society, WWF, and other partners, is preparing a Strategic Plan that will outline conservation priorities for each area to be addressed by the TFCA funds.

Javan Rhino Rhino Protection Units

Four RPUs patrol Indonesia's Ujung Kulon National Park (UKNP), the final stronghold







Figure 13. New RPU base camp

Figures 11 and 12, 8-km perimeter fence

for the critically endangered Javan rhino. In 2011, analysis of video camera-trap images led to an estimate of 35-44 Javan rhinos remaining in Ujung Kulon. In 2013, IRF and WWF donated 140 additional camera traps to the park, which were deployed and led to an estimate of more than 50 individuals (33 males and 25 females). The UKNP camera trap data were validated by an independent group from the IUCN Asian Rhino Specialist Group in early 2014; this group agreed that there are between 58 and 61 animals in the park - good news from previous estimates based only on partial camera coverage (38 in 2011).

As in BBS, RPUs have helped government authorities stop or prevent encroachment; in late 2014, RPUs helped evacuate 48 illegal immigrants who had been shipwrecked on the Ujung Kulon peninsula.

There has been no rhino poaching in UKNP since the RPU program began, however, bird poaching and illegal fishing is increasing significantly in the park. It's a touchy subject - many local people feel entitled to utilize the

park for resources, and because these are rather small-scale crimes, local police often are reluctant to prosecute cases. Members of one local community recently became highly agitated when the park management recently sent a poaching suspect to jail; Ministry of Environment and Forestry intervention will be needed to deal with this problem.

Reliable boat transportation is critical to the Ujung Kulon RPU program. In 2014, with funding from WWF-Indonesia, YABI was able to construct a new patrol boat (Figure 9), used primarily to carry RPUs to patrol disembarkation points on the Ujung Kulon peninsula.

Javan Rhino Study and **Conservation Area (JRSCA)**

The 5,000-ha JRSCA lies along the eastern boundary of UKNP at the base of Gunung Honje and has been developed to expand the usable habitat for rhinos within the park. When construction of the JRSCA began in 2010, only two individuals were utilizing this area on the eastern portion of UKNP. The clearance of 80 hectares of invasive Arenga palm, replaced by natural regeneration of native species, appears to have

increased the number of rhinos visiting JRSCA to ten (plaster casts of footprints of nine of the ten rhinos, including at least one calf, are shown in Figure 10). One dozen native plant species predominate in the regenerating forest plots, 11 of which are Javan rhino food plants.

Within JRSCA, several hundred local citizens have now been employed in the removal of invasive palms, the erection of an 8-km perimeter fence (Figures 11 and 12), and construction of the new RPU base camp (Figure 13).

The International Rhino Foundation is profoundly grateful for generous, long-term support from the American Association of Zoo Keepers, which is helping to conserve these two critically endangered rhinos through the activities described in this report. Thank you so much for all you do for rhinos!

Photos courtesy of Yayasan Badak Indonesia (YABI) unless otherwise noted.

The International Rhino Foundation is profoundly grateful for generous, long-term support from the American Association of Zoo Keepers, which is helping to conserve these two Critically Endangered rhinos...

Check out the Rarest Rhino!

World-famous wildlife photographer Stephen Belcher raised \$60.591 through a Kick starter campaign to launch an expedition to Ujung Kulon to photograph Javan rhinos in the wild. If you haven't had a chance to see these incredible photos, please visit http://www.earthtouchnews.com/ in-the-field/in-the-field/these-incredibly-rare-photos-might-be-your-lastchance-to-see-a-javan-rhino.

A video about the expedition can be seen at http://www.earthtouchnews.com/ videos/little-adventures,-big-planet/extraordinary-journey-to-photograph-therarest-rhino-on-earth/. The IRF and YABI helped Mr. Belcher to set up much of his trip and he is generously allowing us to use a number of the photos.



Action for Cheetahs in Kenya (ACK) began working in the Samburu region in 2009. Our first priority was to establish a baseline for cheetah population estimates and to identify the threats to cheetahs outside of the protected areas of the Samburu, Buffalo Springs and Shaba National Reserves. Our 2007 estimate of cheetahs in Samburu and Isiolo districts ranged from 200 - 300 cheetahs, making this region a core population holding nearly 25% of Kenya's cheetahs. This region is also central to cheetahs in the surrounding Laikipia, Marsabit and Meru districts. The surrounding area is estimated to support an additional 200 -300 cheetahs, thus meaning that the areas supported by the Laikipia Wildlife Forum (LWF) and the Northern Rangelands Trust (NRT) support 50% of Kenya's cheetah population.

Baseline Research

Between 2009 and 2011, ACK analyzed data collected by rangers in NRT. We realized that the conservancy that reported the most frequent cheetah sightings was the Meibae Community Conservancy and hired Chris Lentaam to collect specific cheetah and prey data focused in the area of the most cheetah sightings. Meibae was one of the newest conservancies at the time and was still undergoing issues of community understanding and trust for the role of NRT and responsibility of conservancy management. In 2011, ACK formalized our agreement with the Conservancy and hired two additional cheetah field officers to improve our understanding of cheetah movements and our role in conflict mitigation. Field officers conducted patrols to monitor cheetah movements and to interact with community members in discussions of conservation actions. We felt that of all of the livestock losses occurring in the area, hyena and leopard were the greatest concern to the community. Pervasive negativity about the nighttime livestock attacks resulted in decreased tolerance for daytime losses to cheetah and wild dog. Hyena and jackal spoor (foot prints) were the most common predator evidence found in the areas.

Conflict Mitigation

ACK field staff received board approval to enter into a long-term contract with the Meibae Conservancy and drafted a memorandum of agreement in 2014. The agreement formalized the collaborative relationship between the ACK field officers and Meibae rangers in data collection and conflict mitigation. ACK interviewed 30 households within the Lpus, Masse and Lekiji area and selected six manyatta (homestead containing two or more family houses and their livestock, enclosed in a bush thorn fence) for extensive monitoring. We documented the frequency of predator visits within 30 meters of the manyatta. At two of the most frequently visited manyatta we set up camera traps for six weeks to record the behavior of the predators approaching the manyatta. We then installed two types of predator deterrent lights. The two lights use different approaches:

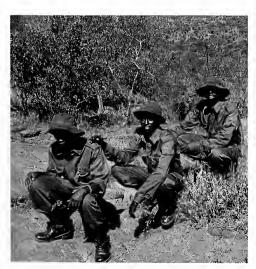
- 1. Lion and Elephant Deterrent Lights (LED) are connected via cables to a solar circuit that is used at the manyatta during the day to charge phones and at night to flash with bright led lights. The theory behind the system is that the bright flashing lights blind the approaching predator or from a distance create the illusion that people are active at the manyatta.
- 2. NightGuard Deterrent Lights are single units with a self-contained solar charger. Each unit operates independently emitting a red light. In this case the light is not bright enough to blind the animal, but still gives the appearance from a distance that the manyatta has activity that is not synchronized or consistent.

The manyatta was given the option to purchase the system at a subsidized rate. In both cases no predator approached the manyatta in six weeks after the lights were installed. One manyatta opted to buy the system and to date has not been attacked by any predators in nearly a year. The only reason given by the manyatta not purchasing the lights was the lack of money due to the drought, however even after the lights were removed, that manyatta has also not had a single predator visitation in nearly a year. This year, 2015, a student from Antioch New England will be conducting a larger, more formal evaluation of the LED system compared to a new Australian system called Fox Lights. In this study she will use three sets of four-week tests using a control of

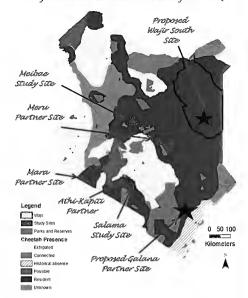
manyatta without lights and two with the lights. During our preliminary evaluation we gave advice to the manyatta residents to keep up with repairs to the fence. While we do believe that the lights act as a good deterrent, there have been many tests that show that a strong fence in itself is the best deterrent. We also noted during the study that there is a large number of donkey and camels that continue to wander around the manyatta. In most cases when photos of the wandering livestock were shown to the manyatta residents they stated that the livestock belonged to neighbors or were not familiar to who were the owners. It is possible that livestock wandering around the outside of the manyatta could draw the hyena, leopard and jackal into the area, thus actually increasing the likelihood of livestock attack.

Deterrent Systems

The next step in this programme is to test the theory that problem animals are repeat offenders. Using camera traps and ID software we will identify the individual animals coming to the manyatta. We will also use tests to draw animals into a test area and collar individuals that come to the feeding stations often. The collars will emit a signal that will turn the lights on when the predator approaches the bait. We will add the lights at the feeding station and monitor the collared individuals to see at what distance they are frightened away from the bait. The system that operates the lights will also act as a base station with wi-fi capacity. Within the area of the wi-fi station we will be able to set up computer training courses for students. It is often the case that the smartest students from each school are granted scholarships to boarding secondary or university programmes. The



Kenya Cheetah Distribution and Study Sites 2014



rural students are behind in technology, thus this programme will provide training that will give the students an edge into higher education rather than lagging behind due to lack of technical training.

The final step in this system is in alert systems for daytime predators such as cheetah and wild dogs. Current conflict data shows that both the cheetah and the wild dogs appear to have areas where they frequently cause conflict. We are testing the theory that there are only a few problem animals and that it will be possible to collar the problem animals with an alert system that will provide an early warning to a possible conflict. The nighttime systems will also be linked to insurance policies whereby if all due action is taken to scare away nighttime raiders the compensation given to the owner of the manyatta can be released in full.



Please contact ACK info@actionforcheetahs.org or

Volunteer and Outreach Coordinator ehermsen@actionforcheetahs.org



Bowling for Rhinos funds have been the primary source of funding for the development of ACK research and conflict mitigation activities in the Meibae Conservancy. Our staff appreciates the support from BFR and the additional funds granted by individual AAZK Chapters. Here are more ways you can support ACK:

Host a talk

each fall ACK Director, Mary Wykstra travels in the US and is available to attend talks. If you are holding an event at a time that Mary cannot attend, other ACK representatives can present information at your event.

Sell ACK merchandise

ACK produces an annual calendar and works with community craftspeople to produce a line of COOL Crafts; you can sell these products at your AAZK events to raise additional funds.

Take a Safari

ACK launched a keeper safari opportunity that allows you to work with ACK at the Meibae and Salama field site and to visit two of Kenya's premier safari destinations. An optional extension includes a visit to Lewa and the Masai Mara. ACK has other internship and volunteer opportunities for those wanting an individual experience (www.miradiwild. org) or are conducting research for university projects.

Spread the word

The organizations supported by BFR provide a future for wildlife and people in remote locations that support rhino populations in the wild. In Africa, and in Kenya in particular, there are cheetahs in all locations where rhino conservation efforts are in place. You institutions are essential for these conservation efforts and for raising the awareness of the delicate line of extinction on which these species walk. Please assure you have adequate education materials to pass out to the many people that you reach during your events.

Cutting Edge Conservation LEWA WILDLIFE CONSERVANCY

Jim Haigwood . Los Angeles Zoo

Keepers at LA Zoo have been participating in BFR for six years now, and through our hard work and dedication we have now been able to raisé \$217,000 for BFR's conservation partners. As a result of this success and my co-workers' kindness, I was lucky enough to be awarded an honorary trip to Kenya to visit BFR's primary beneficiary, the Lewa Wildlife Conservancy.

While I have given a number of talks over the years about the work that BFR and Lewa do, it was both educational and rewarding to see this operation firsthand. Having visited a number of critically endangered species around the world, it never ceases to amaze me how human settlements are pressed right up against these animals' habitats. Lewa understands this and has been doing cutting edge work on the community conservation front.

Lewa has realized that in order for the animals to be safe, the community has to value their presence. In order to accomplish this, Lewa has set up hospitals, schools, nutrition programs for children, wells that provide clean drinking water, loan opportunities for women to start businesses, and law enforcement to help patrol not only the park but also help the community. They are also working to reduce underage pregnancy and STDs. These tangible benefits have motivated the community to work with Lewa to come up with solutions instead of retaliating when human-wildlife conflicts occur. The communities also provide invaluable intelligence about potential poaching events. Lewa's success on these fronts has become a model and mentor for a number of other conservancies in the region and continent as well. From these relationships the Northern Rangelands Trust, a consortium of nineteen community-based conservancies, has been formed.

Due to the excellent security staff that works at Lewa and the community cooperation, there has not been a rhino poaching incident this year and they have reached their carrying capacity for rhinos. Fortunately, Lewa has an outstanding relationship with Borana Conservancy, a neighboring conservancy, and they

will be taking down the fence that divides them. This will further increase their rhino carrying capacity.

While elephant poaching has become an epidemic in Africa, there has not been an incident at Lewa this year. Likely as a result of this safety, elephants are migrating to Lewa in record numbers. Lewa has had to set up "exclusion zones" with hot wire around prime black rhino habitat that would allow the rhinos to enter but keep out the elephants. Sometimes elephants will use their tusks to take down these barriers. In these instances they have to shorten the tusks on these "trouble makers." The level of handson-management that is required at Lewa to manage their wildlife left a significant impression on me. At times I could see parallels with the way we manage animals in zoos. At Lewa, when some of the critically endangered species like the Grey's zebra get injured they have their veterinary staff medically intervene. They are also currently hand-rearing three black rhinos due to a multitude of issues, including the loss of a mother to a poacher's bullet.

I have to admit that prior to arriving to Lewa out of pure ignorance I wondered to myself, what would the caliber of the staff be there? What level of talent could they possibly attract in the middle of Kenya? I have to say that I would be blessed and privileged to stand beside any one of those individuals and call them a coworker. You hear their commitment in their words and you see it in their eyes and actions. I have to imagine that one of the ways that Lewa is so financially efficient is by hiring top-notch people and creating a culture of excellence and stewardship.

During my week in Lewa I got to meet so many people that were very talented at their jobs. There are so many that stick out like Ephantus, who on a shoestring budget used a lot of ingenuity and passion to help put together the incredibly clever Conservation Education Centre. This center was full of hands-on learning opportunities for children from all over Kenya to learn from and get a greater appreciation of the natural world around them. Then there was our guide Michael, who was as passionate



Photos by George Stoneman



about knowing the mammals around Lewa as he was about the birds, and was trying to learn more about the plant life. Many of you have likely seen the informative and visually appealing website and brochures that come out of Lewa. Wanjiku, their talented Communications Officer produces these. You can see the dedication and inspiration in every facet of the operation at Lewa. As an animal person, it is easy for me to focus on the animal aspect of Lewa. Having experienced it firsthand, I have come to realize that Lewa is as much a story about the animals as it is about the people that work at Lewa and the local community. It gives me great optimism to know their message and community-based conservation approach is spreading around the region. Having visited the programs in Indonesia that IRF supports in 2012, it is great to have seen firsthand what an incredible and efficient both of BFR's biggest beneficiaries are.

While there are many depressing stories with conservation, I actually left Africa much more optimistic than when I arrived. What we have to keep in mind is that relying on governments, conservation organizations, and wealthy individuals. is not enough to save the biodiversity crisis that is occurring. It is incumbent upon all of us to be part of the solution. Even though we have much to be proud of regarding our past BFR success, we must find ways to support them even more. Lewa is a beacon of hope for black rhinos, Grevy's zebras, and African elephants. Their success is helping to motivate others to follow suit and use their formula for success. IRF is not only helping to save the last stronghold for Javan rhinos, but their numbers are actually increasing with their help. I find it incredibly rewarding to know that our conservation partners are committed and even more importantly they are effective and proven.



Photo by Jim Haigwood





Jim Haigwood • Los Angeles Zoo

I'm often asked by other AAZK Chapters what has been the secret to AAZK/ LA's success with Bowling For Rhinos over the last few years. I wish there was a simple recipe for that success, but it doesn't exist. I am convinced more and more that the secret to a successful Bowling for Rhinos event is effort, the amount of people involved with putting the event together, time invested in the event, and perseverance. That being said, here are a few components to our event that I believe have been critical to our success.

Initially when I started planning AAZK/LA's first BFR event I wanted to reach out to the local community and get them as much involved with this event as possible. In order to accomplish this, I wanted to have as few teams filled with animal keepers from my institution as possible. Out of the roughly 360 people we had bowling at last year's event, less than 10% were animal keepers from the LA Zoo. I'm not saying to not allow animal keepers to bowl at your event, but I would be concerned about how many people you will have in attendance and how much money you will end up generating in the end. Try and think outside of the box when it comes to filling up your alley. There are the obvious people to invite like docents/volunteers and other divisions within your institution. Then there are the less obvious places to look for bowlers like local art museums, natural history museums, science centers, etc. Many of their employees are interested in helping worthy causes. Perhaps there is a company in your area that supports community involvement. They may allow you to come and speak or distribute information about your event. One year I was lucky enough to come speak at a local movie studio's monthly community outreach meeting. That year one-third of the teams at our event were filled with employees from the studio. Some still come to our event even though it has been five years since I last spoke there.

Possibly join forces with other nearby AZA-accredited zoos, aguariums and animal facilities. Over the last six years now we have had participants from six AZA-accredited institutions and five facilities that hold animals participate in our event. Perhaps by combining your efforts with another nearby AAZK Chapter you can increase the size and impact of your event by working together. We have been lucky enough to see the commitments of many other local AAZK Chapters to this fundraiser grow and help us

over the years. The first couple of years the Orange County AAZK Chapter primarily just bowled at the event. They now help us setup, raise money and get lots of great silent auction items for us. The Santa Barbara AAZK Chapter has also been a great partner and not only sends teams down to bowl, but they also donate some amazing silent auction items. Our event would not be the same without their contributions.

Not only would I suggest getting docents, zoo volunteers and other zoo employees to bowl, but I strongly suggest trying to include them in your AAZK Chapter's BFR planning committee. Many of them may have a lot of great connections or experiences putting together fundraisers. The first two years of our event a docent put together our silent auction. I didn't have any experience doing this and she was a real pro. Our event is a much stronger event to this day because of that help.

I highly recommend building a strong relationship with the Bowling Alley. I will never forget how difficult it was initially to try and get a bowling alley to allow us to hold our event at their alley. Finally, one said yes and it has been a beneficial relationship for both parties ever since. The staff at the alley really get into it. They paint their faces to look like animals, wear costumes, advertise for our event and even more importantly they now fundraise for us as well.

The final most important thing to remember when trying to put together a highly successful event is that it won't be easy; you will have to follow up on things continuously and under no circumstances can you become disheartened or discouraged.

Almost nothing worth doing is easy and this is no exception. The natural world is being ravaged and there are amazing animals that are going to be lost for eternity unless we draw a line in the sand. Please remember the hardships that our conservation partners are taking. The rangers that patrol the parks we are supporting are literally risking their lives to protect the animals there. The reality is that dedicated animal care professionals like ourselves are going to have to be the ones to help protect the natural world, because if it is not going to be us who will it be?





(Right) Bowling team at the 2013 LA Zoo BFR (Left) Dr. Dedi Candra of the Sumatran Rhino Sanctuary at the 2013 LA Zoo BFR. Photos courtesy of Bill Konstant.

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hino in Kenya

The Lewa Wildlife Conservancy is an award-winning 61,000 acre wildlife sanctuary and engine for communitycentric conservation in northern Kenya. It is also a UNESCO World Heritage Site that features on the International Union for the Conservation of Nature's (IUCN) Green List of successful protected areas.

Now globally acknowledged for its success, Lewa's foundation as a conservation organisation was cemented by the partnerships formed in its infancy. One of these partners who believed in Lewa's vision then and has continued to offer invaluable support is the American Association of Zoo Keepers and its affiliate Bowling for Rhinos. Fondly referred to simply as BFR on Lewa, the Conservancy is proud to have been the first recipient of this initiative that provides zoo keepers of the world with an avenue to raise funds and awareness for rhino and habitat conservation. By supporting Lewa, AAZK through BFR has directly played a vital role in facilitating the Conservancy's success. Twenty-five years later since BFR's initial engagement, Lewa has tremendously expanded its programmes and achieved numerous conservation milestones.

The rhino is both Lewa's flagship and umbrella species meaning that a host of other resident species, some equally endangered, directly benefit from the Conservancy's habitat protection and ecosystem management. This includes the elephant, Grevy's zebra, lion, cheetah and the African wild dog.

In 1990 when BFR first extended their support, there were only a handful of rhinos on Lewa. Today, the Conservancy is home to 11% of Kenya's indigenous black rhino population as well as 14% of the country's southern white rhinos. Additionally, Lewa has moved over 20

rhinos to establish new sanctuaries and restock previously inhabited areas such as Meru National Park and Ol Peieta Conservancy. In an unprecedented move, last year Lewa and its western neighbour Borana removed the fence separating the two properties to form 93,000 acres of prime black rhino habitat, the largest in the country.

The threat from poaching continues to exert pressure on all properties holding rhino across Africa and Lewa's success in

Fondly referred to simply as BFR on Lewa, the Conservancy is proud to have been the first recipient of this initiative that provides zoo keepers of the world with an avenue to raise funds and awareness for rhino and habitat conservation.

protecting its population can be attributed to its hardworking security team. BFR has over the years directly supported Lewa's anti-poaching units, the tracker dog team, aerial surveillance, rangers' salaries, vehicle running costs and operations at the radio communication centre. The Lewa-Borana landscape was one of the few areas to not lose rhinos to poachers last year in Kenya.

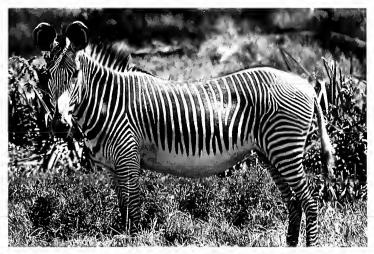
Lewa has also used its conservation success to establish a relationship with its neighbouring communities through development initiatives in education, healthcare, water projects, women's micro-credit, creation of employment opportunities and infrastructure development. Today, these initiatives benefit close to 50,000 people.

As the pioneer private endangered species sanctuary in Kenya, Lewa's tested and perfected methods in rhino conservation have made it the model to emulate in protected area management. Today, the Northern Rangelands Trust, born out of Lewa's desire to support community conservancies in northern Kenya, is the umbrella body to 27 of these entities, all adopting Lewa's working framework. The Conservancy extends its technical and managerial support to these community conservancies in recognition that they hold the key to creating a sustainable and harmonised landscape for both human beings and wildlife to thrive.

Lewa's current mandate now lies in catalysing the increase of land in northern Kenya under conservation management. This includes expansion of the rhino's range to new and secure habitats in order to give the species greater space to breed. In conjunction with the Kenya Wildlife Service and the Northern Rangelands Trust, Lewa is planning to translocate rhinos to Sera Community Conservancy in northern Kenya this year. This will be the first time that communities will be responsible for the protection and security of a rhino population in Kenya, a tremendous achievement for Lewa and Sera.

The Lewa Wildlife Conservancy is only able to achieve all these through the generous support of long-term partners such as BFR. With their help, we have been able to record tremendous accomplishments, and with their continued investment, we will be able to carry on with our mission and ambitious initiatives.

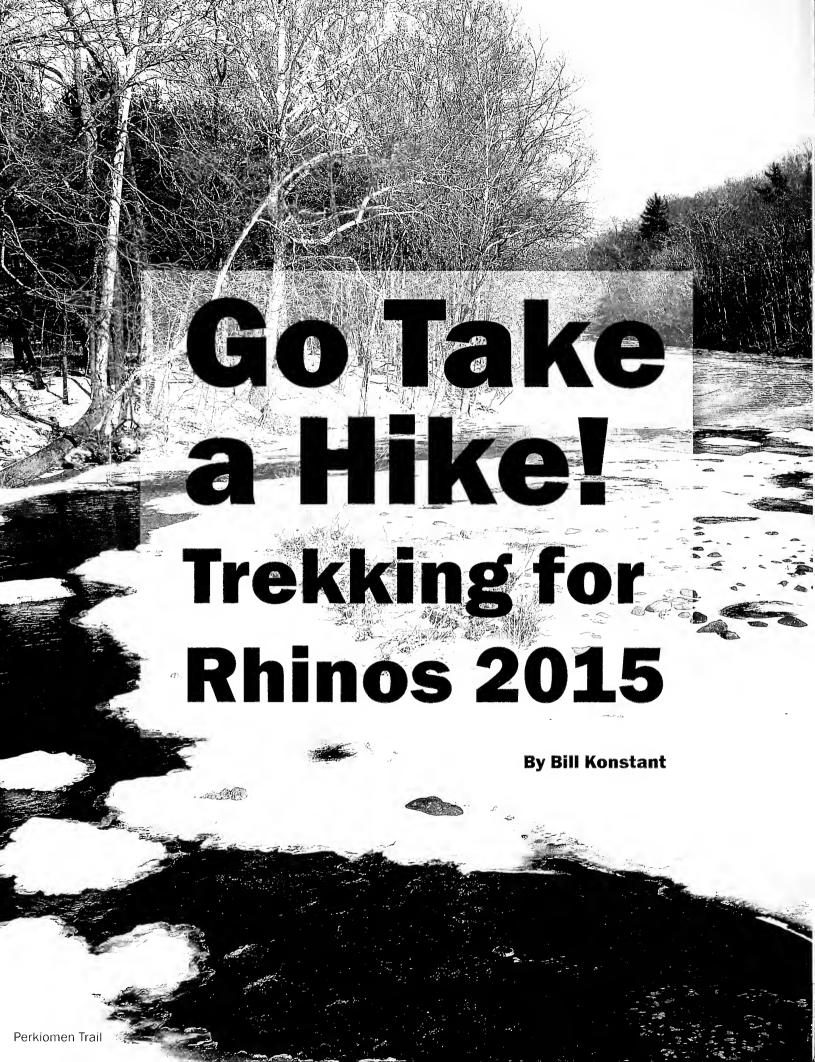








Photos from Lewa Wildlife Conservancy courtesy of Patty Pearthree



Last New Year's Eve brought about a somewhat whacky resolution. I resolved to hike 2,015 miles this year, in part to help draw attention to the plight of the world's rhinos. The logic may not be immediately apparent, so please bear with me.

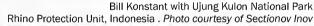
The notion of tromping around for more than two thousand miles this year first materialized when I realized that 2015 represents a special anniversary for rhinos. Humankind has shared the world with the rhinoceros and its ancestors since our own species first appeared on the planet. Prehistoric artists left a permanent record of their relationships with these wild creatures in cave wall sketches and etchings. Centuries later, rhinos were brought to Rome for sacrifice and spectacle or were likened to mythical unicorns by explorers such as Marco Polo. However, it wasn't until 1515 - exactly five hundred years ago - that the rhino became recognized throughout the civilized world. That year, German artist Albrecht Durer, working entirely from a written description provided by a fellow artist and never actually laying eyes on the living creature itself, produced his famous woodcut, The Rhinoceros, Half a millennium later, Durer's artwork remains the most recognized rhino icon in the world.

A second factor contributing to my hiking resolution was the desire to celebrate a banner year for Bowling for Rhinos. In 2014, American Association of Zoo Keeper (AAZK) Chapters set a national fundraising goal of \$500,000 in support of rhino conservation, which would have been an all-time record. In fact, Chapters across the country blasted right through that milestone, tallying close to \$600,000 in support of rhino protection programs in Africa and Asia. Over the last few years, I've been fortunate to work closely with AAZK members, helping to promote Chapter involvement in these programs. Twice now, I've accompanied a number of lucky zoo keepers to project sites in Indonesia where they saw the results of their commitment firsthand. My own zoological career began forty years ago, working as a keeper at a small institution. I can remember wanting to do then what I believe most keepers still want to do today - more to help save threatened wildlife around the world.

Presently, Bowling for Rhinos dollars contribute directly to the protection of black rhinos and white rhinos in Kenya's Lewa Wildlife Conservancy, and to the protection of Sumatran and Javan rhinos in three Indonesian national parks - Bukit Barisan Selatan, Way Kambas and Ujung Kulon. For each of these projects, the financial resources provided by AAZK are on par with grants received from government agencies and a number of NGOs. Beyond rhinos, these protection efforts also benefit biological diversity in general, including dozens of amphibians,

reptiles, birds and mammals on the IUCN Red List of Threatened Species. In Africa, for example, protecting rhinos also helps safeguard elephants, hippopotamus, Grevy's zebra, lions, cheetah, wild dogs, martial eagles, crowned cranes, secretary birds and five threatened vulture species. In Indonesia, threatened populations of Asian elephants, Sumatran tigers, Javan leopards and banteng, clouded leopards, Malayan tapirs, sun bear and pangolins, nine primates, and nearly 20 other threatened mammals that share rhino habitats also benefit from the protection the rhinos receive. So do Javan torrent frogs, king cobras, reticulated pythons, white-winged wood ducks, green peafowl, Storm's storks, Sumatran ground cuckoos, black-winged starlings and perhaps a dozen other threatened bird species.

The name I've given my resolution, Trekking for Rhinos 2015, sounds like something intended for exotic locations. However, the bulk of my wanderings will take place right here in the good old USA, much within Pennsylvania, where I reside. There's an obvious logistic reason for this, but also one of perspective. I want to get closer to and learn more about the nature that surrounds me. For decades my professional focus has been on international wildlife conservation, so it's high time I got better acquainted with the plants and animals that inhabit my own backyard, and then move outward from there. The adventure will not only be a refresher course in natural history, but will allow me to learn more about what wildlife biologists are doing here at home today to help ensure the survival of threatened species and their habitats for the benefit of future generations.









"For decades my professional focus has been on international wildlife conservation, so it's high time I got better acquainted with the plants and animals that inhabit my own backyard, and then move outward from there."

Our own country's wildlife conservation history provides parallels to the sagas of endangered species from faraway lands. Here in the United States, we lament our failure to save species like the passenger pigeon, Carolina parakeet, heath hen, Labrador duck and great auk. At the same time, we've learned from and celebrate the success stories. Decades of dedicated work by wildlife professionals helped bring species like the American bison, bald eagle, peregrine falcon, alligator, timber wolf, California condor and black-footed ferret back from the very brink of extinction. Lesser known, but no less dramatic recoveries can be touted for what were once dwindling species - the eastern bluebird, Canada goose, wild turkey and even white-tailed deer that have again become common, some to the point of actually being regarded as pests. Their stories have implications for efforts intended to save wildlife around the world.

In Africa, a century of intensive conservation was necessary for the white rhino's recovery, as was also the case for Asia's greater one-horned rhino. Both species had been reduced to only a few hundred animals by the end of the 1800s, but have made incredible comebacks and now number in the thousands or tens of thousands. Today, both Sumatran and Javan rhino populations have dwindled to the low hundreds or less, forcing conservationists to pull out all the stops in the effort to save them. The black rhino was never reduced to such low numbers. but lost more than 90% of its population before protection and recovery efforts finally began to take hold. Unfortunately, none of the world's five rhino species is close to being "out of the

woods" and probably won't be for the meaningful future.

Trekking for Rhinos 2015 acknowledges efforts that help stop the decline of rhinos and other threatened wildlife, especially those initiatives supported by America's zoo keepers. While reports of rhino and elephant poaching from several countries remain depressing, rhino protection programs that receive AAZK support have been relatively successful. In some cases, they have reduced rhino poaching deaths to zero for a number of years running. Reliable annual support generated by Bowling for Rhinos has contributed significantly to this success. Interestingly enough, 2,015 miles is close to the average distance covered each year by Rhino Protection Units operating in the three Indonesian national parks that receive support from Bowling for Rhinos.

Bowling for Rhinos is magnificent in its simplicity - the fact that essentially anyone can take part. And it's the same for trekking or hiking. The activities themselves are obviously symbolic. Neither bowlers nor hikers go out on patrol, slinging automatic weapons over their shoulders to track or face down poachers. The average person, however, wants to make a difference and that is best done by finding ways to raise essential funding for rhino ranger salaries, equipment, food, training, and transportation.

The fact that bowling is such an enjoyable form of social recreation attracts more supporters to the cause. Its only limitations are the number of available lanes and bowling shoes. The limits





"Decades of dedicated work by wildlife professionals helped bring species like the American bison, bald eagle, peregrine falcon, alligator, timber wolf, California condor and black-footed ferret back from the very brink of extinction." Photos by author

to hiking are those of personal endurance, but the incentive of getting closer to nature counters that quite effectively and there is no shortage of trails from which to choose.

Hiking commenced for me on New Year's Day. My dog Blue and I logged five miles in Wissahickon Valley Park, a beautiful forested park located within the city limits of Philadelphia. Blue is a Siberian husky/Karelian bear dog mix who hates being left behind if I walk out the front door without. I document each hike with photos and a journal entry, posted as a personal blog at www. facebook.com/trekking4rhinos2015. I also like to include some fact regarding rhino ecology, behavior or conservation, or perhaps a bit of trivia that relates in some way to the day's adventure. Anyone wishing to contribute to Trekking for Rhinos 2015 can do so at www.crowdrise.com/trekkingforrhinos. Just like Bowling for Rhinos' dollars, 100% of the funds raised via this site support the nuts-and-bolts of rhino protection programs in the field.

In order to reach the 2,015 mile goal, I'll have to average about 5.5 miles a day. However, I won't be able to hike every day and my hope is to finish before next New Year's Eve rolls around, so the average daily trek will be a bit longer. At this point, I've just passed the 300-mile mark, meaning I'm about 15% of the way there and have just a bit more than 1,700 miles to go. That's a bit behind schedule, but January and February have got to be the most difficult months in which to hike here in the northeast, and I'm fairly confident that I'll pick up the pace when spring finally arrives.

Destinations to date have included public trails, municipal parks, county parks, state parks, national wildlife refuges and national parks, most here in Pennsylvania. Future treks will expand into neighboring states, taking advantage of work-related travel and invitations from AAZK Chapters to hike with them or on their behalf. A few months from now, I plan to begin hiking segments of the Appalachian Trail. This might provide an opportunity to partner with AAZK Chapters from the 14 states through which the Trail passes on its course from Georgia to Maine. Perhaps one day I'll join the club of folks who've completed it piecemeal over a number of years. Coincidentally, the Appalachian Trail was 2,015 miles long when first opened in the 1930s. That was another contributing factor to setting this year's symbolic goal.

Come December 31, I hope to look back on 2015 with the satisfaction of finally following through on a New Year's resolution, something I can't remember ever having done. But should I fall short of the mileage goal, I'm quite confident that Trekking for Rhinos will catch on and become another tool in AAZK's fundraising tool chest and have the added benefit of getting members across the country to experience the unique nature that surrounds them. As for me, it's probably the only way I'll ever achieve a New Year's resolution that's defied me since I can remember – to lose 10 pounds!

Bill Konstant

MZK.ORG April 2015 | Vol. 42, No. 4 | 129





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